Chapter 5 OPERATION

5.1 SAFETY RULES

AS-102B is a high-speed automatic equipment, each person who will operate this equipment, perform service or maintenance, or supervise its use must read the safety instructions in this manual and labels on the equipment.

Human safety

1. Eye Protection

- (a) Close the protective cover when the UV lamp is operate running. Wear UV safety glass or goggles with side shields to protect eyes against the reflected UV rays.
- (b) When the UV system is turn on, the UV lamp shuttle open only at automatic mode.
- (c) Warn other people in the area not to look directly at the UV lamp.

2. Skin Protection

(a) Wear protective clothing to protect against burns caused by UV light.

3. Toxic Fume Prevention

- (a) Keep the factory area well ventilated.
- (b) Remove all chlorinated solvents from the working area before printing. Certain chlorinated solvents decompose when exposed to UV radiation to form phosgene gas.

4. Electric Shock Prevention

- (a) Inspect the primary power cord frequently for damage or cracking of the cover. Bare wiring can kill. Do not use a system with a damaged power cord. Replace a damaged power cord immediately.
- (b) Before maintenance, disconnect the main power or unplug the power supply. After maintenance, plug in the power supply again.

5. Injury Prevention

- (a) Do not put your hands inside the machine when it is running. Avoid that ties, belts or any other loose clothing get close to machine mechanical parts in motion, as they could be caught by them.
- (b) In case of a real or impending dangerous situation for the operator or for the machine, press immediately the emergency stop button (red-color mushroom shaped).

6. Fire Prevention

- (a) Remove combustible material from the framer station units.
- (b) Do not touch the flamer or the mechanical parts near the flamer station.

Machine Safety

- 1. Before the first time start the system, check to be sure that the input power match the requirements, and compressed air, petroleum gas for the flamer, signal and power connectors are all connected properly.
- 2. Before starting the machine, make sure that there are no foreign objects (screwdrivers, keys, screws, etc.) left on the machine.
- 3. Do not remove safety guards of the machine especially when it is running.
- If the machine is interrupted automatically, do not restart it until the cause for the interruption of continuous running has been determined and resolved.
- Always keep the machine clean. Clean the inks or dust on the machine with suitable detergent only, do not use the corrosive detergents.
- 6. Machine has to be start only by a skilled technician and only after having checked that nobody else is too close to the machine.

5.2 Basic Operation Procedure

This section describes the basic operation procedure of the machine. It is applicable to the calibrated machine system. Never start the machine when the machine is not finish setup or calibrate yet. Please take the time to completely read this manual before attempting to setup and operate this machine.

After machine setup and ready to use:

- 1. Place the circuit breaker at side of the control box to "On" position, wait until a message page display on the screen.
- 2. Press the "Power" button on the control panel and ensure the green light illuminates. After the "Monitor" page is appeared, change the parameters setting if necessary. Jog the machine at least one cycle to pass its "Zero" point and ensure that the machine can run properly without hit anything.
- 3. Press the "UV" key on the touch screen to turn on the UV systems, wait until the warm up procedure for the UV system until finish.
- 4. Press the "START" button on the control panel, after a warning sound signal, the green signal tower light illuminates and the machine start to run.
- 5. Normal stop Press the "STOP" button on the control panel, the machine will stop at the seted point after the current printing cycle. At the same time, the yellow tower light will illuminates, the flamers will switch off, UV shuttle will close, UV power and UV cooling fan will switch to "Low" power mode.
- 6. EMERGENCY STOP Press the "EMER. STOP" button on control panel, the machine will immediately stop all operation. At the same time the red signal tower light illuminates, the flamers will switch off, all UV shuttle will close and UV power will switch to "Low" power mode.

Note: To restart the automatic print mode, unlock the "EMER. STOP" button, and press the "RESTART" button on the control panel.

7. Shut down – Before press the "Shut down" key on the screen. Stop the feeder at first (if exist), after all loaded bottles are printed, made sure it is no bottle remain on the machine, turn off the UV systems, and the exhaust fan will still run for ten minutes more to cool down the UV lamp, and the cooling fan will power off automatically. After that, you can press the "POWER OFF" button on the control panel and last place the circuit breaker on side of the control box to "OFF" position.